

DETAILED ACTION

Response to Communication(s)

1. This office action is in response to the Response/Amendment filed on April 27th, 2009. Claims 26 and 32 are now canceled. Claims 1-25 and 27-31 are now pending in the application.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Jeffrey Gluck (Reg. No. 44,457) on August 12, 2009.

The application has been amended as follows:

IN THE CLAIM:

The following change to the claim 15 has been approved by the examiner and agreed upon by applicant:

Claim 15

- lines 9-10, "during which time" has been changed to -- wherein during said second mode --.
- line 17, "multi-antenna signal processing circuit" has been changed to -- multi-signal processor --.

Response to Amendment/Arguments

3. The 35 U.S.C. 102(e) rejection sent on 10/29/08 to claims 1-25 and 27-31 have been withdrawn in light of applicant's amendment/arguments filed on 27 April 2009.

Allowable Subject Matter

4. Claims 1-25 and 27-31 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

The Terminal Disclaimers filed 07/28/08 have overcome all outstanding rejections and placed the instant application in a favorable condition for allowance. Moreover, the prior art of record, considered individually or in combination, does indeed fail to fairly show or suggest the claimed apparatus (claim 27) and method (claims 1 and 21) for operating the radio frequency RF signal processing circuit comprise steps of “establishing a wireless communications channel between a first access point and a second access point in accordance with a communications protocol; monitoring transmission conditions in the wireless communications channel, including an available data rate, to determine whether a first transmission mode or a second transmission mode should be used; performing a first set of signal processing operations at the first access point on a single received RF signal from the second access point when the first transmission mode is used; performing a second set of signal processing operations, including at least one operation not included in the first set of signal processing operations, at the first access point on M independent RF received signals from the second access point when the second mode of operation is used; wherein data transmissions between the first access point and the second access point are compliant with the communications protocol in both the first transmission mode

and the second transmission mode.” structurally and functionally interconnected with other limitations in a manner as recited in claims 2-6, 22-23 and 28-29.

Substantially regarding claims 7, 15, 24 and 30, the prior art of record also fails to show the claimed apparatus and method of performing multi-antenna radio frequency communications comprising steps of “performing data transmissions during a first operating mode in a channel at a first access point using a first baseband processor; performing data transmissions during a second operating mode in the channel at the first access point using a multi-antenna signal processing circuit that is not used in the first operating mode, including the following receiving M independent RF modulated input signals from a second access point; processing the M independent RF modulated input signals using a channel mixing matrix to extract N independent data signals transmitted by the second access point; wherein the first operating mode and the second operating mode are automatically selected based on a transmission condition in the channel.” structurally and functionally interconnected with other limitations in a manner as recited in claims 8-14, 16-20, 25 and 31.

5. Reference(s) US 6,937,592 B1; US 7,493,092 B2; US 7,564,814 B2 and US 2003/0235147 A1 are cited because they are put pertinent to diversity transmission mode for communication systems. However, none of references teach connection as recited in claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tri H. Phan/
Primary Examiner, Art Unit 2416

August 21, 2009